

## ABSTRACT

A device for exciting surface plasmons includes a light illuminating source (1), a transparent substrate (2) having a ridge, a metal layer (3) covering side surfaces of the ridge and their neighboring region, and a thin metal film (4) formed on a top face of the ridge. 5 Evanescence waves (5) caused by light emitted from the light illuminating source (1) and transmitted through the transparent substrate (2) and the thin metal film (4) can excite surface plasmons in the thin metal film (4).